

Looking for the Philistine Story of Saul's Death

*Relics of Ancient Races Just Discovered
Build Hope of American Scientists
That the Story of the Battle with the
Israelites May at Last Be Told*



A view of the ruins of Beth-Shan, near the summit of Mt. Gilboa, where Saul was killed. Beneath these ruins it is believed still another city once existed and it soon may also be uncovered.

IN the last chapter of I. Samuel there is a battle story, which is considered to be one of the most thrilling in all literature. It is the story, told in the simple language of the Scriptures, which is the most difficult of all writing, of how King Saul and his sons went out at the head of the Israelites to do battle with the Philistines on the Mount of Gilboa, in Palestine.

It describes how Saul and his sons were killed, and how, when the Israelites had fled in disorder, the Philistines cut off the heads of the King and his sons and carried them to the nearby city of Beth-Shan. There they were nailed to the walls of the citadel.

American archaeologists have now succeeded in penetrating through the dust, the rubbish and the rebuilding of more than three centuries to the very foundations of these famous fortress walls. In a few years they will have bared everything that was left intact of the great structures that stood in Beth-Shan in the days of Saul. If, as seems almost certain, the victorious Philistines set forth on a stone inscription their account of the battle that is known to history now only through the Bible, the explorers will find and decipher it, for every shovel of earth in a hill now sixty feet high is to be screened and searched for relics.

This hill is outwardly all that remains to-day of Beth-Shan. It rises above a plain surrounded by rolling hills in the valley of Megiddo. From its height may be scanned the whole length of Mount Gilboa and of the larger valley at its foot, the most famous battle ground in the world—the field of Armageddon. Here more battles have been fought than on any other spot on earth. But the remarkable fact about these battles is that most of them decided wars some of which changed the course of history.

The hill was the site of the citadel of the city of Beth-Shan for a known period of three thousand years. One of the discoveries made by the American investigators is that it has held this place for nearly four thousand years. Far down in its depths have been found proofs that the place was occupied by large numbers of people prior to 1700 B. C. Even at that early date it was a large city—one of the most important in Palestine. The trench which has reached this far into the secrets of history has not yet struck the virgin soil.

Dr. Clarence S. Fisher, curator of the Egyptian section of the University of Pennsylvania Museum, is the archaeologist in charge of this work. Throughout the world he is noted for his discovery in Egypt of the Palace of Merneptah and for his finds in the tombs of Gizeh and Denderah. He was the first explorer to begin work in Palestine after the successful termination of the world war made that possible. The expedition which he had headed for eleven years in Egypt was transferred to the site of Beth-Shan, and excavations were started in June of 1920.

The official report of what was done during the five months in which it is possible to work in that climate has just reached this country, with photographs showing the progress of the excavations. Beth-Shan is well below sea level. Its hot season starts in late October, and then work by white men is virtually impossible. Accordingly the work of excavation there was discontinued and resumed at Memphis, in Egypt. It will be taken up again in Palestine next June.

When work was started on this famous hill the explorers knew roughly that Beth-Shan had been occupied for a longer continuous period than any other place in the world. It was generally believed that it

had been the site of nine different cities. All the Christian world has looked forward to the day when this site might be excavated, along with others in Palestine. Little actual new knowledge was expected from the result of the first year, for archaeological exploration is necessarily slow.

But the report of Dr. Fisher shows that Beth-Shan is even more important than was supposed. On a small section of the top of the hill there stands to-day the little native village of Beisan. All around this was barren sand and gravel. But beneath that, in some places only a few inches below the surface, are ruins that may revolutionize history.

First the explorer came upon what was evidently a pretentious Arab city of about 680 A. D. Below that was still another city that grew and flourished under the rule of Byzantium. Delving still further the diggers found the solid walls, the huge columns and the sturdy architecture of the Romans. When the paving stones, once trod by the feet of Roman nobles and warriors, were taken up and the soil beneath carried away there was revealed the unmistakable record of Greek occupancy—classic architecture in stone and pottery and tiles.

Here were four cities that in themselves will yield, when fully uncovered, whole volumes of new history. But it was not long before Dr. Fisher discovered that this was just the beginning of his work. Below the records of the Greeks he found the ruins of a Scythian city. Then he came upon heterogeneous ruins of Semitic occupancy, and at a level which he places at 1700 B. C. he found ruins of a city built by some race as yet unidentified, which probably inhabited Palestine before the Semites. This is stated to be the oldest evidence of human occupancy so far revealed in Palestine, but it does not exhaust the possibilities of Beth-Shan, for there is still more excavating to be done.

It should be explained that in the present science of archaeology the mistakes of the past are avoided. When an explorer sets about studying buried ruins he uncovers everything that is left. This, of course, takes time. Dr. Fisher has succeeded in revealing some of the major ruins of the Arab and of the Byzantine cities. He knew that he could not hope to move the whole huge hill in one year, and he wanted to be able to report to the museum on what he might expect to find in later seasons. So a deep trench was dug along one side of the hill, from the top almost to the bottom. A spot was selected for the trench a little apart from the central section in order not to destroy anything of value.

In addition to the definite records of cities enumerated, the explorer also found



A water pipe three thousand years old, a mute reminder that the ancient city of which we are just beginning to learn had its municipal water plant 1,000 years B. C. The pipe shown here is still intact and water could still be sent through it.

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On the right—A party of Arabs at work in the neighborhood of the new excavations.



In the foreground are the ruins of the ancient Arab city, which have just been uncovered and where new explorations are being made. In the background are remains of the old Byzantine city.

many evidences of Egyptian occupancy. Beth-Shan, because of its strategic position, was known as the gateway from Mesopotamia to Egypt. The conqueror held

that city could command Palestine and threaten both of those other great countries. Without it he could not hope to be a world conqueror. It is said that the only known instance of failure to subdue all the surrounding country after capturing Beisan was that of the Crusaders, who took the city but could not advance beyond it, possibly because they were so far from their base of operations.

One of the most interesting of the finds relating to the Egyptians made by Dr. Fisher was a huge stone Stela of the Pharaoh Sety I., who ruled about 1300 B. C. According to the explorer, it contains the usual laudatory description of the King. Of course there has been difficulty in translating it, and the translation is not yet completed. Some important additions to history are expected from this source. Dr. Fisher notes in his report that it men-

tions the Syrians, but does not explain how.

Another interesting discovery was the skeleton of a young woman. "She was laid on her side, partly contracted, in an inclosure formed by a single row of stones," says Dr. Fisher. "In this were placed a number of earthenware vessels, the larger against the wall, the smaller behind the skeleton. The types are well known in Palestine as belonging to 1800-1600 B. C., contemporaneous with the expulsion of the Hyksos from Egypt. At the neck were a number of beads, two being of glazed quartzite."

"The Beth-Shan of Scripture," Dr. Fisher continues, "called Scythopolis by the Greeks and now the little village of Beisan, has been an object of scholarly interest ever since the modern scientific world turned its attention to the study of the history and topography of the Holy Land."

"It is true that Biblical references are meager and later classical records do not give us much detailed information about the city, beyond establishing its reputation

as a place of wealth and strength. Nevertheless, the strategic situation of the fortress at the eastern end of the Valley of Armageddon, whence it must have overlooked so many decisive struggles between the empires of the East and West, added to the enigma of the origin of the later name, Scythopolis, has enshrouded the Tel in fascinating mystery.

"During the Ottoman regime no effort could be made to solve this mystery. The site formed part of the private property of the Sultan; it lay in a fertile district considerably below the sea level; was noted for excessive heat, malarial climate and insecure political conditions. Under present guardianship, rapid progress has been made in draining the neighboring swamps, and although there are still raids on the district by Bedawi from Trans-Jordan the country is safe for excavation purposes.

"It was not until the law of antiquities of 1920 came into force under the British administration that permission to excavate could be obtained. From the railway station only the top of the Tel is visible, rising above the edge of the plateau that still shows signs of one of the final Anglo-Turkish skirmishes. Here and there odd columns and bits of masonry suggest the presence of Greek or Roman villas, and the line of the old city wall can be traced along the north and west until it disappears in the distance behind the modern village.

"By the classical period Scythopolis, by which name it was known then, had developed into one of the great cities of the East, and the ruins of temples, theaters and public buildings of this epoch cover an extensive area. To excavate these will be the task of many years. The original portion of the site has, of course, the greater interest for us, and here should be found the materials for the reconstruction of Semitic history and civilization."

Dr. Fisher notes that the lowest level reached "contained a large circular structure, approximately dated to 2000 B. C.," and that "below this the debris continued with no signs as yet of the natural rock, thus proving the antiquity of the hill to be even greater than we had anticipated."

Cultivating Trout For The Market

THE first cultivators of trout were the Chinese, whose food consists largely of fish found in fresh water. The Romans during the decadence of the empire also practiced fish culture, but it is really to the monks of the Middle Ages, who had an eye to appetizing food during the feast of Lent (when they were forbidden flesh), that we owe the beginnings of an industry now much improved upon in Europe. Nevertheless in no country has it been carried to so high a degree as in New Zealand, where trout may be obtained weighing from fifteen to twenty pounds each.

In order to grow trout successfully healthy spawn is essential, running water, protection against natural enemies, convenient food and after a certain time pro-

vision against the contingency that some of the trout may eat the others.

Before the eggs are hatched, usually in hundreds of thousands, they are collected in series of incubator boxes through which runs a stream of water, pure and reasonably cold. Great care must be taken that rats or other animals that devour eggs are not allowed to enter.

The process of development covers a period of from five to seven weeks. The first change to be observed is the elongation of the egg, and then two dark spots, which are the future eyes, appear. Another red mark begins to show where the heart will be. This changing form begins to move. If at this time the little egg is taken hold of the heat of the hand will soon loosen the shell. But it is best not to precipitate events. Scarcely have the fish left the eggs when they begin to resemble somewhat the spawn of frogs. They

carry in the abdomen a transparent sack in which is contained food enough for several weeks. After a few weeks this sack disappears and the fish begin to move slowly, looking for food.

It is at this time that amateurs are most apt to lose the result of their labor, for it is extremely difficult to feed the fish. The natural food of little trout is mollusks or small insects such as are found in seaweed or aquatic plants, but it is also well to furnish them with eggs chopped very fine or well pounded liver or other meat.

The incubators must always be scrupulously clean; they should be entirely gone over every two days at least, and at the time the little fishes lose their abdominal sacks it is a good thing to sweeten the running water. Even with the greatest care possible, out of thousands of eggs it has been found possible to raise only two or three dozen trout; and the dead must

be at once removed from the incubators. Of course if equally convenient in all cases, a pond is about fifty times more serviceable than an incubator, but the water in the pond must be in some way renewed, preferably by zinc pipes. Best of all is a brook of sufficient depth, but so arranged as to keep the fish in constant view either by an iron partition or a board that will prevent the fish from slipping under.

The trout growing industry is not a mere pastime but a very lucrative business if well managed. Large business is done with city markets and with those deputed by the authorities to repopulate rivers with fish. In the latter case, if the fish have been previously kept in ponds, temporary change to tanks may be desirable. Then the water to which they have been accustomed should gradually be diluted with water from the river so as to prepare them for the destined change.